DEFENSE LOGISTICS AGENCY
DEFENSE SUPPLY CENTER, COLUMBUS
3990 E. BROAD ST.
COLUMBUS, OH 43218-3990

IN REPLY
REFER TO

DSCC-VAT 22 October 2004

MEMORANDUM FOR: MILITARY/INDUSTRY DISTRUBUTION

SUBJECT: Initial Draft of MIL-PRF-55342H and MIL-PRF-55342/1J, /2J, /3J, /4J, /5J, /6G, /7E, /8E, /9E, /10D, /11A, /12A, and /13 **with Amendment 1**;
Resistors, Chip, Fixed, Film, Nonestablished Reliability, Established Reliability, Space Level. General Specification For.
Project numbers 5905-2009 and -2009-01 through -2009-13.

The above subject initial drafts with proposed changes included are available from our website (http://www.dscc.dla.mil/Programs/MilSpec/initialdrafts.asp) and are for your review and comment/concurrence. These amendments are the result of Engineering Practices Study, Project Number 5905-1999. The changes proposed to qualification and group C inspections allow for higher power ratings to be verified before they become effective. The proposed changes within the specifications are marked with asterisks.

If these documents are of interest to you, please provide your concurrence or comments to the project officer electronically. This can be in the form of a returned e-mail. Technical comments should include data or sufficient justification for consideration. **Non-reply will be considered as concurrence with the proposed changes.** We have allotted a 45-day coordination cycle from the date of this letter. Please provide your comments within that time period. If an electronic response is not possible we will still accept comments via letter, facsimile or phone.

A coordination meeting on these drafts will be held in Columbus, Ohio the 2nd quarter FY05.

This process still requires military departments to identify their comments as “Essential” or “Suggested”. Essential comments must be justified with supporting data. Military review activities should forward comments to their custodians or this office, as applicable, in sufficient time to allow for consolidating the department reply.

If there are any questions, please contact Dennis L. Cross by the preferred method of electronic mail at Dennis.Cross@dla.mil by telephone at commercial 614-692-0553, DSN 850-0553; or by facsimile at 614-692-6939. Our mailing address as a last resort is Defense Supply Center, Columbus, DSCC-VAT, P.O. Box 3990, Columbus, OH 43218-3990.

Signature on file
KENDALL A. COTTONGIM
Chief
Electronic Components Team

Attachments

NOTE: This draft, dated 7 October, 2004, prepared by DLA-CC, as agent for Army-CR, has not been approved and is subject to modification. DO NOT USE FOR ACQUISITION PURPOSES. (Project 5905-2009-03)

INCH-POUND
MIL-PRF-55342/3J
w / Amendment 1

SUPERSEDING
MIL-PRF-55342/3J
31 October 2003

PERFORMANCE SPECIFICATION

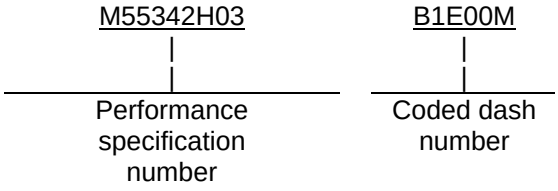
RESISTORS, CHIP, FIXED, FILM, NONESTABLISHED RELIABILITY, ESTABLISHED RELIABILITY, SPACE LEVEL, STYLE RM1005

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers the requirements for style RM1005, fixed, film, chip, nonestablished reliability, established reliability, and space level resistors. This style is available in characteristic H, characteristic E, characteristic K, and characteristic M, resistance tolerances .1 percent, 1 percent, 2 percent, 5 percent, and 10 percent, and all termination materials.

1.2 Part or Identifying Number (PIN). Chip resistors covered by this specification are identified by a PIN which consists of the basic number of this specification and a coded dash number. The PIN is in the following form:



The coded dash number is derived in accordance with MIL-PRF-55342.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements documents cited in sections 3 and 4 of this specification, whether or not they are listed.

Comments, suggestions, or questions on this document should be addressed to: US Army Communications - Electronics Command, ATTN: AMSEL-LC-LEO-E-EP, Fort Monmouth, NJ 07703-5023 or emailed to Jeffery.Carver@mail1.monmouth.army.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at www.dodssp.daps.mil.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks forms a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

DEPARTMENT OF DEFENSE SPECIFICATION

MIL-PRF-55342 - Resistors, Chip, Fixed, Film, Nonestablished Reliability, Established Reliability, Space Level, General Specification for.

(Copies of these documents are available online at http://assist.daps.dla.mil/quicksearch/ or www.dodssp.daps.mil or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein (except for related associated specifications, specification sheets, or MS standards), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 General. The requirements for acquiring the product described herein shall consist of this document and MIL-PRF-55342.

3.2 Interface and physical dimensions. Resistors shall meet the interface and physical dimensions specified on figure 1, as applicable.

3.3 Power rating (ER failure rate levels). The power rating for characteristic H and characteristic E shall be 50 milliwatts. For characteristic M and characteristic K, the power rating shall be 100 milliwatts.

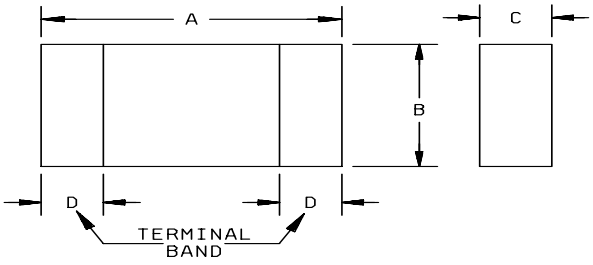
* 3.3.1 Power rating (High power). The power rating for all characteristics shall be 200 milliwatts. (NOTE: This power rating is for verification testing only by QPL suppliers and shall not be used for design and application purposes. The power rating in 3.3 shall be used for design and application).

3.4 Voltage rating (ER failure rate levels). The maximum continuous working voltage shall not exceed 40 volts

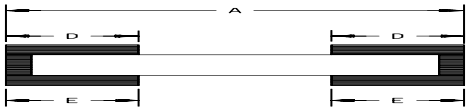
* 3.4.1 Voltage rating (High power). The maximum continuous working voltage shall not exceed 75 volts. (NOTE: This voltage rating is for verification testing only by QPL suppliers and shall not be used for design and application purposes. The voltage rating in 3.4 shall be used for design and application).

3.5 Resistance and resistance tolerance. Minimum and maximum resistance values and associated resistance tolerances shall be as listed in table I.

Configuration A



Configuration B



Inches	mm
.005	0.13
.007	0.18
.012	0.30
.015	0.38
.030	0.76
.033	0.84
.050	1.27
.100	2.54
.105	2.67

Configuration	Dimension A inch	Dimension B inch	Dimension C inch	Dimension D inch	Dimension E inch
A	.100 ±.005	.050 ±.005	.012/.030	.015 ±.005	N/A
B	.105 ±.007	.050 ±.005	.015/.033	.015 ±.005	.015 ±.005

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ±.005 (0.13 mm).
4. The pictorial view of the styles above are given as representative of the envelope of the item. Slight deviations from the outline shown, which are contained within the envelope, and do not alter the functional aspects of the device are acceptable.
5. Configuration A covers termination materials D, T, and W.
6. Configuration B covers termination materials B, C, G, and U.

FIGURE 1. Style RM1005.

* TABLE I. Minimum and maximum resistance values.

Resistance tolerance	Minimum resistance	Maximum resistance
Percent (±) 0.1 1.0 2.0 5.0 10.0	1.0 ohm	22.0 megohms

4. VERIFICATION

4.1 Verification. Verification shall be in accordance with MIL-PRF-55342.

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Service or Defense Agency, or within the military services system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. Chip resistors are intended to be used in thin or thick film hybrid circuits where micro-circuitry is indicated and in surface mount applications.

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number, date of this specification, the applicable associated specification, and the complete PIN (see 1.2).

b. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.2).

c. Packaging requirements (see 5.1). (i.e. Electrostatic discharge (ESD) sensitive packaging).

d. Allowable substitution (see MIL-PRF-55342).

e. If marking is required (see MIL-PRF-55342).

6.3 Tolerance for wraparound termination. The added tolerance for the wraparound type termination is intended to apply only to termination, metallization, and pretinning material.

6.4 Electrostatic charge effects. Under relatively low humidity conditions, some types of film resistors, particularly those with small dimensions and high sheet resistivity materials, are prone to sudden significant changes in resistance (usually reductions in value) and to changes in temperature coefficient of resistance as a result of discharge of static charges built up on associated objects during handling, packaging, or shipping. Substitution of more suitable implements and materials can help minimize this problem. For example, use of cotton gloves, static eliminator devices, air humidifiers, and operator and workbench grounding systems can reduce static buildup during handling. Means of alleviating static problems during shipment include elimination of loose packaging of resistors and use of metal foil (conductive) and static dissipation packaging materials. Direct shipments to the government is controlled by MIL-DTL-39032 which specifies a preventive packaging procedure.

6.5 Changes from previous issue. The margins of this specification are marked with asterisks to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodians:
Army - CR
Navy - EC
Air Force - 11
NASA - NA

Review activities:
Army - AR, AT, AV, CR4
Navy - AS, CG, MC, OS
Air Force - 19, 99

Preparing activity:
Army - CR

Agent:
DLA - CC

(Project 5905-2009-03)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at www.dodssp.daps.mil.